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ABSTRACT

This paper was envisioned as largely a literature review, but surprisingly, there was very little to find besides a comprehensive body of information pertaining to nonverbal aspects of pedagogy almost exclusively dealing with management of the instructor's nonverbal behavior. The paper, therefore, presents what seems to be the most salient cues which learners provide relative to affect and effect in pedagogical contexts, almost all of which occur through kinesics, proxemics, haptics, chronemics, and vocalics. It first describes cues which may be used to uncover information concerning how students feel about the learning experience and then looks at cues related to listening and comprehension. The paper points out that a wealth of information is available to trainers and teachers about their learners if the former can effectively identify and interpret these nonverbal cues. It suggests that future research might focus on more systematic examinations of these cues and the efficacy of training teachers to process them effectively during instruction. (NKA)

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The Use of Nonverbal Cues to Assess Affect and Effect in Communication Training and Development

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Perhaps the most compelling reason why we should attempt to train ourselves to become more sensitive to nonverbal cues in pedagogical contexts lies in the fact that this information is available to us one hundred percent of the time during training sessions. If we accept the notion that, when in the presence of others, one cannot not communicate, it follows that learners are constantly providing information relative to the affect and effect which we as trainers, teachers or coaches are having upon them. In this paper we will use the term "affect" to refer to the subjective emotional response which learners have to the instructor or material and the term "effect" applies to the achievement of instructional objectives which are generally cognitive in nature.

When we, the authors, first undertook this project we presumed that this paper would materialize as largely a literature review. We envisioned that we would pour through scores of studies which had uncovered information pertaining to learner's nonverbal behavior and that we would compile, categorize and report these research findings. Surprisingly, there was very little to find. There is, to be sure, a comprehensive body of information pertaining to nonverbal aspects of pedagogy but almost all of it deals exclusively with management of the instructor's nonverbal behavior. Given the transactional nature of the teaching/learning experience, we would have expected that roughly half of the attention would have been devoted to instructor's behaviors and the other half to the behaviors of learners. This was not the case. Therefore, what we will do in this paper is present what seem to us to be the most salient cues which learners provide relative to affect and effect in pedagogical contexts, almost all of which occur through kinesics, proxemics, haptics, chronemics and vocalics. We will first describe cues which may be used to uncover information concerning how students feel about the learning experience and then we will look at cues related to listening and comprehension.

Nonverbal Indicators of Affect

Posture

Postures which would seem to be indicators of positive affect are apt to be open, relaxed, inclusive or congruent with a lean toward the trainer. Conversely, negative affect might be inferred from postures which are closed, tense, noninclusive or incongruent with a lean away from the trainer. The lean is significant because, in general, humans lean toward people and things which they like and away from people and things which they don't like. The extent to which learner's postures are open would indicate the degree to which they are psychologically open to what is happening around them. Closed postures are indicative of protection or defensiveness. Hence, a room full of learners who are sitting with their legs tightly together and their arms folded across their chests would correctly be interpreted as undesirable. Inclusive or noninclusive posture might be inferred, for example, by a group sitting in a circle. If you're the trainer, look at the legs of the people on either side of you. If their legs are crossed toward you it would be a positive sign; if their legs are crossed away from you it would be an indicator of negative affect. Congruence- people exhibiting a similar posture to yours- would also be a sign that things are going well.

Gestures, Touch and Voice

Regarding gestures, one would hope to see a minimum of leave-taking cues. Examples of these would include looking at watches, looking toward the door, reaching for a jacket or closing a notebook while the session is still in progress. In general cues such as these would indicate that people are looking forward to their exit which, of course, is not something which people do when they are engaged in their present activity.

There is generally not a lot of touch in training sessions with adult learners however positive affect may be inferred from warm friendly touch such as handshakes or pats on the back. Negative affect would be demonstrated by withdrawal from touch.

Regarding vocal cues, one would hope for enthusiasm, which would be communicated through vocal variety rather than a relative monotone, occasional laughter and few and short pauses.

Facial Expression and Eye Behavior

In terms of communication, the eyes comprise the most important region of the face. "The windows to the soul," as eyes have been called, have greater communicative potential than

all the other parts of the face put together. The eyes, with their surrounding skin and brows, are capable of literally thousands of permutations. There are neural links to the brain which cause the eyes to react in accordance to brain activity. Its no wonder that we rely on them so much in our efforts to decipher what others are thinking. Students use eye behavior to indicate whether or not they are willing to be called upon. Those willing to speak will look at the instructor while those reluctant to be called on will stare down at their desks in order avoid communicating a willingness to participate. The size of the pupils can also be used to discern the attitudes of learners. Pupils become larger when people look at something they like and they constrict when the opposite is the case. One should be aware, however, that dilated pupils can be difficult to recognize. One needs to be situated quite close to the person and pupil size is much easier to note on people with light colored eyes than on those with dark eyes. With regard to facial expression, the frequency of smiles would likely be the easiest cue to which one might attend.

Distance

When workshop participants select their seats they are not consciously aware that their choice of where to sit is an act of communication, but, of course, there is information to be gleaned about learners based on their location in the room. Since these seats were apt to have been chosen at the very beginning of a training session, before anything has started, the selection of seats may be used to infer information about predispositions to the training. Those most likely to feel positively about it will likely seat themselves closer to the front and center of the room. Those who feel less positively would more likely be found in the rear corners of the seating area. In general, instructors may infer that those who seat themselves at the front of the room want to become active participants; those who sit in the rear are content to function as observers. If there are subsequent training sessions with the same group, one would hope to see movement toward the front and center. Movement in the opposite directions would be a sign of negative affect.

Time

We are accustomed to thinking of time as a valuable commodity and we speak of it in terms similar to those we use for money. We spend it, waste it, make it, and save it. Rarely, however, do we think of time in terms of its potential for communicating messages about ourselves and what we see as important. If one becomes attuned to it, noting how learners use their time can provide insight to their affective states. Punctuality would seem to be an obvious example. People arriving early for a training session would be a positive sign. Late arrival

might be a sign of disrespect. An interesting example of the correlation between time and respect might be noted from college students' perceptions of how long they should wait for a tardy professor. Most students at almost any institution seem to believe that they should wait longer for a full professor than they would wait for an instructor, yet this does not seem to be a stated policy at any college or university in America. Finally, yet another indicator of positive affect would occur if people stayed after a session in order to talk with the trainer.

Nonverbal Indicators of Effect

When considering nonverbal indicators of *effect* in a classroom or training situation, even the most inexperienced novice intuitively looks for cues that his or her trainees are (or are not) listening. However, a more difficult question to answer as a trainer is, "Of those trainees who are attempting to listen, who is and isn't comprehending the message?" Given the paucity of literature in the area of nonverbal communication as it relates to *listeners* in the classroom, we will limit our discussion of *effect* in this paper to "message comprehension." As you will see in the following discussion, once we move away from nonverbal indicators of affect and into the realm of comprehension cues, the water definitely becomes murkier. Like our discussion of affective states, this discussion of effect will rely primarily on our combined 40+ years of experience as communication trainers.

Posture, Body Movements, and Comprehension

Body postures and movements that indicate message comprehension are perhaps the easiest nonverbal cues to spot when training adult learners. They include either (1) forward lean and slight body tension if the receiver is highly engaged but working hard to process a message, or (2) backward lean and a more relaxed posture if (s)he is easily following the message. In either instance, the learner generally will exhibit cues that are inclusive and congruent with yours as the trainer. Other body movements that may indicate message comprehension include a single head nod or an upward movement of the head (often accompanied by a short inhalation of the breath) when a learner experiences an important insight into what is being said (i.e., an "A-ha" experience). Rapid multiple head nods indicate that the learner not only comprehends, but is ready for you to proceed to the next point post haste.

In contrast, listeners who fail to comprehend a message may exhibit one of two different sets of nonverbal behaviors, *depending upon the extent to which the training event is salient to them.* If the learning situation is salient, but the listener is having difficulty processing the

message, (s)he may exhibit a backward lean and a negative shake of the head, signifying a lack of understanding. Additionally, if the incoming message is surprising in any way, (s)he may exhibit a slight jerk of the chest and backward lean. Finally, if the listener is experiencing information overload or exasperation, (s)he may simply lean back and slump downward in the seat. For participants who are failing to comprehend the message, posture and body movements may reflect congruence or incongruence, inclusiveness or non-inclusiveness, depending on the amount of negative affect they are experiencing.

If the event isn't salient to the trainee and (s)he is experiencing difficulty in comprehending the message, (s)he may psychologically withdraw from the situation. In this event, (s)he may simply lean backward; slump down in the seat; begin to "doodle" or draw pictures on a note pad; twirl the ends of his or her hair (if it is long), and generally "fidget." Arms may be folded across the chest and legs may be crossed, indicating non-inclusiveness and incongruence with your posture as the trainer.

Facial Expressions, Eye Behavior and Comprehension

Although posture and body movements serve as excellent indicators of message comprehension, they are even more powerful when coupled with observations of facial expressions and eye behavior. Consider the facial and eye behaviors of learners who successfully comprehend an incoming message. Generally, they will gaze more intensely (and for longer durations) at a trainer than will learners who are experiencing less comprehension. Likewise, when asked a question, the former will break gaze with you less often than their less knowledgeable counterparts, and their eyes will be wider and "brighter" when you speak. (Indeed, when asked a question, non-learners generally cast their gaze downward and look extremely busy.) Finally, the facial expressions of "successful learners" will be more relaxed than those of people who are experiencing listening difficulties.

In contrast, listeners experiencing less comprehension may squint their eyes more often while gazing, thereby indicating increased concentration or frustration. If they are experiencing information overload, they may unconsciously roll their eyes or withdraw their gaze entirely. (If they gaze away for lengthy periods of time and their eyes "glaze over," you may never recover their attention.) Likewise listeners experiencing low levels of message comprehension generally exhibit more frowns and tense facial expressions than their more "successful" counterparts.

Although much research has been conducted on the relationship between pupil dilation and positive or negative affect, little is known about the correlation between message comprehension and pupil dilation. Certainly future research in nonverbal communication may

provide us with some useful and interesting data regarding this particular relationship.

Insights into Message Comprehension as
as a Function of Touch, Time and Vocal Cues

In contrast with what we believe we know about the preceding two topics, we know far less about indicators of message comprehension related to haptics, chronemics, and vocalics. Indeed, research in the area of classroom communication has focused far more attention on gestures, posture, facial expressions, and eye behavior—even though most of that research has focused primarily on the speaker. However, based on our personal observations of trainees' use of touch, time and vocal cues, we offer the following observations or predictions about their relationship to message comprehension.

If a learner's touch is "friendly" when (s)he is experiencing positive affect, it follows that his or her touch will be more friendly when (s)he is experiencing more rather than less comprehension. Indeed, if we fail to understand a message during an interpersonal encounter, we are more likely to avoid or pull away from a speaker's touch than if we understand what (s)he is saying. (This is especially true if we are experiencing a negative affective state at the time.) Thus, we would predict that a learner is more likely to withdraw from touch if (s)he fails to understand an incoming message, especially if (s)he is experiencing a negative affective state about either the trainer or the learning situation. In contrast, (s)he probably will be more open to touch (and being touched) if (s)he comprehends the message, and even more so if (s)he understands the message and is positive about the training environment.

As we mentioned earlier, people who experience a positive affective state generally arrive early or on time to a training session, and may stay to talk after the program has ended. In contrast, people experiencing a negative affective state generally arrive on time or late to a session and rarely stay afterward to talk. If our observations about affect are true, one may surmise that a trainee's use of time also may indicate his/her level of comprehension, *depending on the valence of their affective state.* For example, learners who are "positive," but who fail to understand a message, may arrive early or stay late to ask questions or clarify their understanding about a trainer's message. If they are "negative" *because they don't understand the message*, they may arrive late or leave immediately upon completion of the program because they are (1) frustrated, or (2) don't want to be embarrassed in front of the trainer and his/her colleagues. Thus, if a learner arrives late and leaves early, you may want to consider more than one interpretation of his or her use of time. The tardiness may "mean" that (s)he mismanaged time, feels negative about the program, or fails to understand what you are saying and doesn't wish to be embarrassed. Likewise, if (s)he leaves late, the behavior may "mean"

that (s)he has somewhere else to be, is experiencing a negative affective state, or may be frustrated and doesn't want to be embarrassed by his or her lack of understanding.

Finally, lets consider the area of vocalics as it relates to message comprehension. Certainly, an enthusiastic tone of voice and the use of few and short pauses may be indicators of positive affect on the part of learners. However, a question arises regarding whether a learner may be positive about you, your topic or the training environment, and still not understand a word that you said. We believe that the answer to this question is, "Yes." Thus, a trainer should not necessarily associate enthusiasm with message comprehension. (To illustrate, consider the number of college students whom you may have taught who showed enthusiasm about your class or the topic, but then failed an exam—much to your surprise.) Likewise, we would argue that the use of many and long pauses may indicate either boredom *or a lack of message comprehension*, especially if the learner seems to be reaching for words to effectively articulate a question or an answer to a question you have asked. Thus, trainers must exercise caution when jumping to conclusions about listeners' interest levels when attributing meaning to vocalic cues. This is especially true until nonverbal communication scholars can parse out the many possible meanings of vocal cues as they are related strictly to message comprehension.

A Few Closing Comments

As we mentioned at the outset of this paper, we originally had planned to complete an extensive review of the literature and, based on that, develop a comprehensive system by which to categorize nonverbal behaviors as they related to training pedagogy. However, in the process we found little research to review and decided to begin with our own personal observations of what we believe will become a future program of research. Thus, what you have read is our "jumping off point"—a place for us to continue the study of nonverbal behaviors as they relate to classroom communication, particularly the behavior of learners. First, we identified those nonverbal behaviors associated with learners' *affect*. These included posture, gestures, touch, voice, facial expression, distance and time.

Next, we moved to a discussion of nonverbal cues associated with *effect*, conceptualized in this paper as "message comprehension." Of greatest ease to note were observations about posture, body movement, facial expressions, and eye behavior. More difficult to identify were variables associated with touch, time, and vocal cues.

As you can see, a wealth of information is available to trainers and teachers about their learners if the former can effectively identify and interpret these nonverbal cues. Future research in this area might focus on more systematic examinations of these cues and the efficacy of training teachers to process them effectively during instruction.